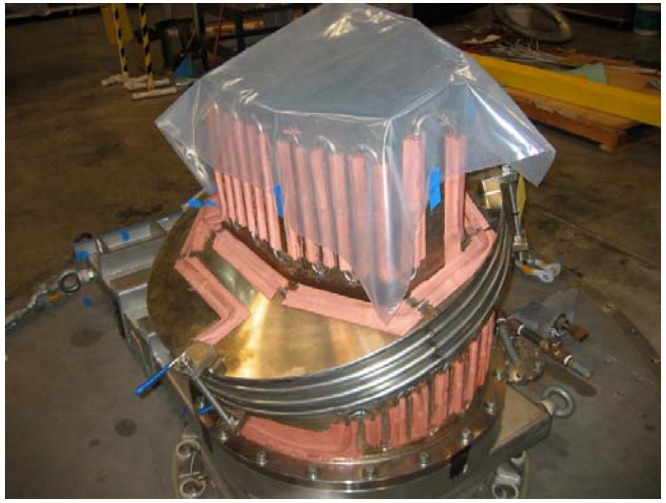
DIII-D FY2006 Level 1 Target:
Inject 2MW of neutral beam power in the counter direction on DIII-D and begin physics experiments

First Quarter Milestone:
Install new beamline port needed to interface the rotated beamline with the vessel for counter injection. (December 31, 2005)
This quarterly milestone was completed on December 20, 2005.

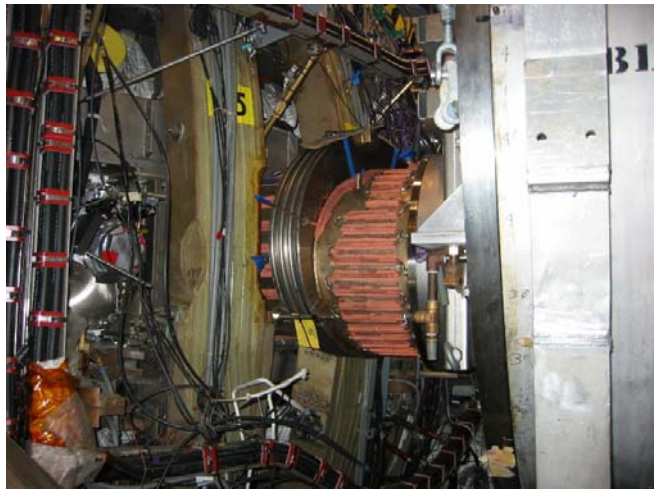
Prior to the first quarter of FY06, the neutral beamline at 210 degrees and its control electronics, vacuum system, cryo system, high voltage transmission line and magnet power supplies were removed from the DIII-D machine hall and moved to the high bay area. In addition several diagnostics and part of the Fast Wave system had to be removed.

While the beamline components were located in the high bay area, repairs were made to the internal components of the 210 beam line, and the neutral beam stand was modified. The repairs include repair of a water leak in the cooling line to the calorimeter and replacement of the magnet pole shield. A new driftduct weldment (port adapter) was manufactured. Copper was shaved off the toroidal field coil turns next to the 210R0 port in order to make room for the new drift duct weldment.

After the modification of the beamline stand it was reinstalled in the machine hall. The drift duct was mounted to the spool piece closest to the vessel and test fitted to the port. It was then removed again and moved to the high bay, where holes were drilled for the drift duct collimator. The rebuilt B-coil feed leads were then installed before the drift duct was moved back to the machine hall and welded to the 210 port.



The new driftduct assembly received from the manufacturer



The new driftduct assembly fitted to the 210 port